

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (Cancelled).

11 (Previously presented). A grown-up transgenic plant which is in a stage that is edible for mammals or edible as a vegetable or fruited plant for humans, and which is obtained by a process comprising:

(i) introducing a DNA sequence, which encodes human interferon- α and has a constitutive regulatory sequence, inducible regulatory sequence, or tissue specific regulatory sequence, into a plant protoplast, plant cell, plant tissue, or calli;

(ii) growing or regenerating the transformed plant protoplast, plant cell, plant tissue, or calli into a grown-up transgenic plant while allowing expression of said DNA within the grown-up transgenic plant to form said human interferon- α in an amount of 0.1 microgram to one milligram per one kilogram by fresh weight of the grown-up transgenic plant that is effective to prevent and/or treat humans or mammals from diseases which can be prevented and/or treated with said human interferon- α when

the edible grown-up transgenic plant is ingested by said humans or said mammals; and

(iii) harvesting the grown-up transgenic plant.

Claims 12-14 (Cancelled).

15(Previously presented). The grown-up transgenic plant of claim 11, which can be ingested by humans without cooking or heating.

16(Previously presented). The grown-up transgenic plant of claim 11, wherein said plant is a plant of a family selected from the group consisting of *Solanaceae*, *Apiaceae*, *Asteraceae*, *Brassicaceae*, *Cucurbitaceae*, *Rosaceae*, *Vitaceae*, *Ericaceae*, *Caricaceae*, *Fabaceae*, *Juglandaceae*, and *Chenopodiaceae*.

Claim 17 (Cancelled).

18(Previously presented). An isolated tissue of the grown-up transgenic plant of claim 11, which is selected from the group consisting of leaf, stem, root, fruit, peel, bud, petal, and a combination thereof, wherein said isolated tissue comprises the human interferon- α expressed in said transgenic plant.

19(Previously presented). The isolated tissue of claim 18, to which trehalose has been added.

20 (Previously presented). The grown-up transgenic plant of claim 11 which is in a cut, peeled, pulverized, squeezed, or extracted form comprising an effective amount of the expressed human interferon- α .

21 (Previously presented). The grown-up transgenic plant of claim 20 in a cut, peeled, pulverized, squeezed or extracted form, to which trehalose has been added.

Claims 22-31 (Cancelled).

32 (Previously presented). The grown-up transgenic plant of claim 11, which can be ingested by mammals without cooking or heating.

33 (New). The grown-up transgenic plant of claim 11, wherein said human interferon- α is of the $\alpha 2$ type.

34 (New). The grown-up transgenic plant of claim 11, which is a transgenic tomato, carrot, lettuce, spinach, celery, cabbage, or potato plant.